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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/766,736	01/22/2001	Edward J. Bortolini	Bortolini	1298

24283 7590 12/19/2005

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EXAMINER

RAMAN, USHA

ART UNIT	PAPER NUMBER
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2617

DATE MAILED: 12/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/766,736	Applicant(s) BORTOLINI ET AL.	
	Examiner Usha Raman	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED OFFICE ACTION

Response to Arguments

1. Applicant's arguments filed August 19th 2005 have been fully considered but they are not persuasive. Applicant argues that, the prior art system merely teaches a complete bidirectional cable modem and, "there is no suggestion in the cited prior art of splitting the cable modem termination system into separate exclusively upstream and exclusively downstream components which are located in separate levels of the network". The examiner respectfully disagrees with applicant's allegations. Upon close examination of the specification and figures, it appears that the cable modems 303, 304, 403, 404 in applicant's system are bidirectional in nature as well, as they transmit data from upstream cable modems 301, 302, 401, and 402 back to the master headend. Examiner also notes that cable modems 122 and 125, each have both the upstream and downstream cable modem component means, wherein the upstream component means of CMTS 122 is independent of the downstream component means of CMTS 125, and are both located at different levels of hierarchy. Furthermore, the examiner also alleges that it is an inherent that downstream data is transmitted from the headend to the end user locations in an "exclusively" downstream direction, since the downstream data is not transmitted back to the headend, and vice-versa for the upstream transmission. As a result, the examiner maintains rejection.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-10 are rejected under 35 U.S.C. 102(b) as being anticipated by applicant's prior art system.

In regards to claims 1 and 6, applicant's prior art system (figures 1 and 2) discloses a broadband cable modem termination system for managing data transmissions through a broadband network that interconnects a plurality of end user locations that are connected to a first side of the network (i.e. proximate to the passive fiber nodes); and a headend-(111, 113) via a cable modem (CMTS 105, 106, located in 121-125) that is connected to a second side of the network (i.e. proximate to the regional backbone network), the broadband network comprising hierarchical network having at least two levels, the broadband cable modem termination system comprising:

downstream broadband cable modem component means (CMTS in hub 125), located at a "first" level of the hierarchical network, which is proximate to the second side of the network (i.e. proximate to the regional backbone network), for transmitting data received from a source of program material that is located at the head-end, exclusively in a downstream direction (downstream data is transmitted from the headend to the end user locations, and therefor it is an inherent characteristic that downstream data is transmitted in an "exclusively"

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downstream direction, since the downstream data is not transmitted back to the headend) through the network to selected ones of the plurality of end user locations; and

upstream broadband cable modem component means (CMTS 122, 124), located at a second level of the hierarchical network, which is proximate to second side of the network (i.e. proximate to the regional backbone network) and independent of the downstream broadband cable modem component means (CMTS 122 operates independent of CMTS 125), for transmitting control data received from at least one of the plurality of end user locations exclusively in an upstream direction through the network to the head-end (upstream data is transmitted from the end user to the head end and therefore it is an inherent characteristic that upstream data is transmitted in an "exclusively" upstream direction, since the upstream data is not transmitted back to the end user), wherein the second level is located downstream of the first level in the hierarchical network (CMTS 122, 124 are located at a second level downstream of CMTS 125 at the first level of the hierarchical network).

In regards to claims 2, and 7, data in digital baseband IP format is transmitted downstream from the CMTS to the end user locations are transmitted over existing RF channels. Therefore, the data received at the CMTS in digital baseband IP format is inherently converted in a RF based format for transmission over RF channels to a plurality of end user locations. Note figure 1, and descriptions in page 4, lines 15-19 and page 5, lines 5-10 of the disclosure.

In regards to claims 3, 5, 8 and 10, the RF channels are located downstream of the CMTS, therefore upstream data received upstream at the CMTS from the end user locations are received in radio frequency based format and converted in digital baseband IP format for transmission to head end as indicated in figure 1.

In regards to claims 4, and 9, hubs 124 and 125 each comprise a CMTS and therefore the downstream broadband cable modem component (hub 125) and the upstream broadband cable component (hub 124) operate independent of each other.

Conclusion


4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Usha Raman whose telephone number is (571) 272-7380. The examiner can normally be reached on Mon-Fri: 9am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Kelley can be reached on (571) 272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

UR


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